

BAY STATE GAS - GAS PROGRAM B/C MODEL

10/22/02

RESIDENTIAL CUSTOM MEASURES PROGRAM

3-YEAR DSM PROGRAM PLAN - UPDATED AVOIDED COSTS & DISCOUNT RATE

PROGRAM ASSUMPTIONS			ECONOMIC ASSUMPTIONS															
Program Life	3 Yrs.	General Inflation	2.500%	Forecast of the 1/2/03 30-Year T-Bond rate, equal to the year-weighted average ask yield in 8/13/02 Wall Street Journal for regular T-bonds maturing more than 20 years														
Measure Life	15 Yrs.	Nominal Discount Rate	5.190%															
(NOTE: 1 therm = 100,000 btus)																		
Program Savings Data																		
Gas Savings - Therms																		
1. Incremental savings from installations in a particular year -therms				253,945	298,375	291,727	-	-	-	-	-	-	-	-	-	-	-	-
2. Cumulative Annual program savings - therms [1]				253,945	552,320	844,047	844,047	844,047	844,047	844,047	844,047	844,047	844,047	844,047	844,047	844,047	844,047	844,047
Program Benefits																		
NPV Program Benefits (\$2000 \$'s)																		
3. Avoided Gas Supply Costs [2]				\$4,996,602	\$123,385	\$273,880	\$430,893	\$434,885	\$445,757	\$456,901	\$468,324	\$480,032	\$492,033	\$504,334	\$519,245	\$535,766	\$552,789	\$570,328
4. Additional Quantifiable Benefits				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5. Total Program Benefits				\$4,996,602	\$123,385	\$273,880	\$430,893	\$434,885	\$445,757	\$456,901	\$468,324	\$480,032	\$492,033	\$504,334	\$519,245	\$535,766	\$552,789	\$570,328
Program Costs																		
NPV Program Costs (\$2000 \$'s)																		
6. Program Design, Admin., and Marketing				\$210,032	\$70,000	\$76,000	\$75,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7. Program Evaluation				\$22,835	\$8,000	\$8,000	\$8,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8. Customer/Contractor Rebates				\$1,213,038	\$393,500	\$444,790	\$438,940	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9. Lost Base Revenue (allocated to this program)				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10. Direct Utility Costs				\$1,445,906	\$471,500	\$528,790	\$521,940	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Participant Costs																		
11. Incremental Customer Costs (less any program rebate)				\$709,568	\$222,044	\$265,750	\$259,900	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Program Costs																		
12. Total Utility & Participant Costs				\$2,155,473	\$693,544	\$794,540	\$781,840	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Notes: [1] Due to the measure life, end effects of savings are calculated and accounted for beyond 2014 but are not shown above.

[2] Source: 12/6/01 Avoided Gas Supply Costs Study UPDATE - Resource Insight, Inc.

BAY STATE GAS - GAS PROGRAM B/C MODEL

TUMBLEWASH REBATE PROGRAM

3-YEAR DSM PROGRAM PLAN - UPDATED AVOIDED COSTS & DISCOUNT RATE

10/22/02

PROGRAM ASSUMPTIONS			ECONOMIC ASSUMPTIONS															
Program Life	3 Yrs.	General Inflation	2.500%	Forecast of the 1/2/03 30-Year T-Bond rate, equal to the year-weighted average ask yield in 8/13/02 Wall Street Journal for regular T-bonds maturing more than 20 years														
Measure Life	14 Yrs.	Nominal Discount Rate	5.190%															
(NOTE: 1 therm = 100,000 btus)																		
Program Savings Data				2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Gas Savings - therms																		
1.	Incremental savings from installations in a particular year -therms			10,580	12,397	13,305	26,179	40,871	55,562	68,436	81,310	72,378	27,103	-	-	-	-	-
2.	Cumulative Annual program savings - therms [1]			10,580	22,977	36,282	62,462	103,332	158,894	227,329	308,639	381,017	408,120	408,120	408,120	408,120	408,120	397,540
Water Savings - 000 gallons																		
3.	Incremental savings from installations in a particular year - 000 gals			4,906	5,748	6,169	12,139	18,951	25,763	31,732	37,702	33,560	12,567	-	-	-	-	-
4.	Cumulative Annual program savings - 000 gals [1]			4,906	10,654	16,823	28,962	47,913	73,676	105,408	143,109	176,670	189,237	189,237	189,237	189,237	189,237	184,331
Program Benefits																		
NPV Program Benefits (2000 \$'s)																		
5.	Avoided Gas Supply Costs [2]			\$2,045,302	\$5,140	\$11,393	\$18,522	\$32,183	\$54,572	\$86,013	\$126,135	\$175,531	\$222,112	\$243,859	\$251,069	\$259,058	\$267,289	\$275,769
6.	Avoided Water Costs [3]			\$7,454,967	\$25,019	\$54,334	\$85,799	\$147,707	\$244,356	\$375,746	\$537,580	\$729,858	\$901,015	\$965,107	\$965,107	\$965,107	\$965,107	\$940,089
7.	Total Program Benefits			\$9,500,270	\$30,159	\$65,728	\$104,321	\$179,890	\$298,928	\$461,759	\$663,715	\$905,389	\$1,123,126	\$1,208,967	\$1,216,176	\$1,224,165	\$1,232,396	\$1,240,877
Program Costs																		
NPV Program Costs (2001 \$'s)																		
8.	Program Design, Admin., and Marketing			\$19,981	\$7,000	\$7,000	\$7,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9.	Program Evaluation			\$24,263	\$8,500	\$8,500	\$8,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10.	Customer/Contractor Rebates			\$205,517	\$72,000	\$72,000	\$72,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11.	Lost Base Revenue (allocated to this program)			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12.	Direct Utility Costs			\$249,761	\$87,500	\$87,500	\$87,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Participant Costs																		
13.	Incremental Customer Costs (less any program rebate)			\$3,664,573	\$239,542	\$228,056	\$188,285	\$493,952	\$578,357	\$655,208	\$645,619	\$767,071	\$682,809	\$255,690	\$0	\$0	\$0	\$0
Total Program Costs																		
14.	Total Utility & Participant Costs			\$3,914,334	\$327,042	\$315,556	\$275,785	\$493,952	\$578,357	\$655,208	\$645,619	\$767,071	\$682,809	\$255,690	\$0	\$0	\$0	\$0

Screening Results

15. Total Resource Cost Test

2.43 Line 7 divided by line 14

Notes: [1] Due to the measure life, end effects of savings are calculated and accounted for beyond 2014 but are not shown above.

[2] Source: 12/6/01 Avoided Gas Supply Costs Study, UPDATE - Resource Insight, Inc.

[3] Source: Regional Tumble Wash Study - NEEP 2000

BAY STATE GAS - GAS PROGRAM B/C MODEL

10/22/02

LOW INCOME CUSTOM MEASURES PROGRAM

3-YEAR DSM PROGRAM PLAN - UPDATED AVOIDED COSTS & DISCOUNT RATE

PROGRAM ASSUMPTIONS			ECONOMIC ASSUMPTIONS															
Program Life	3 Yrs.	General Inflation	2.500%	Forecast of the 1/2/03 30-Year T-Bond rate, equal to the year-weighted average ask yield in 8/13/02 Wall Street Journal for regular T-bonds maturing more than 20 years														
Measure Life	15 Yrs.	Nominal Discount Rate	5.190%	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
(NOTE: 1 therm = 100,000 btus)																		
Program Savings Data																		
Gas Savings - therms																		
1. Incremental savings from installations in a particular year - therms			289,267	289,794	289,794													
2. Cumulative Annual program savings - therms [1]			289,267	579,061	868,854	868,854	868,854	868,854	868,854	868,854	868,854	868,854	868,854	868,854	868,854	868,854	868,854	868,854
Program Benefits																		
NPV Program Benefits (2000 \$'s)																		
3. Avoided Gas Supply Costs [2]			\$5,149,124	\$140,547	\$287,140	\$443,557	\$447,667	\$458,859	\$470,330	\$482,088	\$494,141	\$506,494	\$519,156	\$534,506	\$551,513	\$569,036	\$587,091	\$604,384
4. Additional Quantifiable Benefits			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5. Total Program Benefits			\$5,149,124	\$140,547	\$287,140	\$443,557	\$447,667	\$458,859	\$470,330	\$482,088	\$494,141	\$506,494	\$519,156	\$534,506	\$551,513	\$569,036	\$587,091	\$604,384
Program Costs																		
NPV Program Costs (2000 \$'s)																		
6. Program Design, Admin., and Marketing			\$354,948	\$125,000	\$124,000	\$124,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7. Program Evaluation			\$42,816	\$15,000	\$15,000	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8. Customer/contractor Rebates			\$2,099,850	\$735,000	\$736,000	\$736,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9. Lost Base Revenue (allocated to this program)			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10. Direct Utility Costs			\$2,497,614	\$875,000	\$875,000	\$875,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Participant Costs																		
11. Incremental Customer Costs (less any program rebate)			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Program Costs																		
12. Total Utility & Participant Costs			\$2,497,614	\$875,000	\$875,000	\$875,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Screening Results

13. Total Resource Cost Test 2.06 Line 5 divided by line 12

Notes: [1] Due to the measure life, end effects of savings are calculated and accounted for beyond 2014 but are not shown above.

[2] Source: 12/6/01 Avoided Gas Supply Costs Study UPDATE - Resource Insight, Inc.

BAY STATE GAS - GAS PROGRAM B/C MODEL

MULTIFAMILY CUSTOM MEASURES PROGRAM

3-YEAR DSM PROGRAM PLAN - UPDATED AVOIDED COSTS & DISCOUNT RATE

10/22/02

PROGRAM ASSUMPTIONS				ECONOMIC ASSUMPTIONS															
Program Life	3 Yrs.	General Inflation	2.500%	Forecast of the 1/2/03 30-Year T-Bond rate, equal to the year-weighted average ask yield in 8/13/02 Wall Street Journal for regular T-bonds maturing more than 20 years															
Measure Life	18 Yrs.	Nominal Discount Rate	5.190%	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
(NOTE: 1 therm = 100,000 btus)																			
Program Savings Data																			
Gas Savings - therms																			
1. Incremental savings from installations in a particular year -therms				389,880	389,880	389,880													
2. Cumulative Annual program savings - therms [1]				389,880	779,760	1,169,640	1,169,640	1,169,640	1,169,640	1,169,640	1,169,640	1,169,640	1,169,640	1,169,640	1,169,640	1,169,640	1,169,640	1,169,640	
Program Benefits																			
NPV Program Benefits (2000, \$s)																			
3. Avoided Gas Supply Costs [2]				\$8,065,538	\$189,432	\$386,661	\$597,111	\$602,643	\$617,709	\$633,152	\$648,981	\$665,205	\$681,836	\$698,881	\$719,544	\$742,439	\$766,029	\$790,334	
4. Additional Quantifiable Benefits				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
5. Total Program Benefits				\$8,065,538	\$189,432	\$386,661	\$597,111	\$602,643	\$617,709	\$633,152	\$648,981	\$665,205	\$681,836	\$698,881	\$719,544	\$742,439	\$766,029	\$790,334	
Program Costs																			
NPV Program Costs (2000, \$s)																			
6. Program Design, Admin., and Marketing				\$341,626	\$120,000	\$120,000	\$119,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
7. Program Evaluation				\$45,671	\$16,000	\$16,000	\$16,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
8. Customer/Contractor Rebates				\$2,712,200	\$950,177	\$950,177	\$950,177	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
9. Lost Base Revenue (allocated to this program)				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
10. Direct Utility Costs				\$3,099,497	\$1,086,177	\$1,086,177	\$1,085,177	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Participant Costs																			
11. Incremental Customer Costs (less any program rebate)				\$2,282,640	\$799,687	\$799,687	\$799,687	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total Program Costs																			
12. Total Utility & Participant Costs				\$5,382,138	\$1,885,864	\$1,885,864	\$1,884,864	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Screening Results																			
13. Total Resource Cost Test				1.50	Line 5 divided by line 12														

Notes: [1] Due to the measure life, end effects of savings are calculated and accounted for beyond 2014 but are not shown above.

[2] Source: 12/6/01 Avoided Gas Supply Costs Study UPDATE - Resource Insight, Inc.

BAY STATE GAS - GAS PROGRAM B/C MODEL

10/22/02

**SMALL COMMERCIAL/INDUSTRIAL CUSTOM MEASURES PROGRAM
3-YEAR DSM PROGRAM PLAN - UPDATED AVOIDED COSTS & DISCOUNT RATE**

PROGRAM ASSUMPTIONS			ECONOMIC ASSUMPTIONS												
Program Life	3 Yrs.	General Inflation	2.500%	Forecast of the 1/2/03 30-Year T-Bond rate, equal to the year-weighted average ask yield in 8/13/02 Wall Street Journal for regular T-bonds maturing more than 20 years											
Measure Life	16 Yrs.	Nominal Discount Rate	5.190%	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
(NOTE: 1 therm = 100,000 btus)															
Program Savings Data															
Gas Savings - therms															
1. Incremental savings from installations in a particular year - therms				371,640	366,625	363,012									
2. Cumulative Annual program savings - therms [1]				371,640	738,265	1,101,277	1,101,277	1,101,277	1,101,277	1,101,277	1,101,277	1,101,277	1,101,277	1,101,277	1,101,277
Program Benefits															
3. Avoided Gas Supply Costs [2]				\$6,890,841	\$180,570	\$366,085	\$562,211	\$567,420	\$581,605	\$596,146	\$611,049	\$626,325	\$641,984	\$658,033	\$677,488
4. Additional Quantifiable Benefits				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5. Total Program Benefits				\$6,890,841	\$180,570	\$366,085	\$562,211	\$567,420	\$581,605	\$596,146	\$611,049	\$626,325	\$641,984	\$658,033	\$677,488
Program Costs															
Utility Costs				NPV Program Costs (\$2000 \$'s)											
6. Program Design, Admin., and Marketing				\$320,695	\$113,000	\$112,000	\$112,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7. Program Evaluation				\$48,525	\$17,000	\$17,000	\$17,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8. Customer/Contractor Rebates				\$2,446,158	\$862,292	\$857,152	\$850,900	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9. Lost Base Revenue (allocated to this program)				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10. Direct Utility Costs				\$2,815,378	\$992,292	\$986,152	\$979,900	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Participant Costs															
11. Incremental Customer Costs (less any program rebate)				\$1,832,459	\$647,292	\$642,152	\$635,900	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Program Costs															
12. Total Utility & Participant Costs				\$4,647,837	\$1,639,584	\$1,628,304	\$1,615,800	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Screening Results															
13. Total Resource Cost Test				1.48 Line 5 divided by line 12											

Notes: [1] Due to the measure life, end effects of savings are calculated and accounted for beyond 2014 but are not shown above.
[2] Source: 12/6/01 Avoided Gas Supply Costs Study UPDATE - Resource Insight, Inc.

BAY STATE GAS - GAS PROGRAM B/C MODEL

10/22/02

**LARGE & MEDIUM COMMERCIAL/INDUSTRIAL CUSTOM MEASURES PROGRAM
3-YEAR DSM PROGRAM PLAN - UPDATED AVOIDED COSTS & DISCOUNT RATE**

PROGRAM ASSUMPTIONS				ECONOMIC ASSUMPTIONS																		
Program Life	3 Yrs.	General Inflation	2.500%	Forecast of the 1/2/03 30-Year T-Bond rate, equal to the year-weighted average ask yield in 8/13/02 Wall Street Journal for regular T-bonds maturing more than 20 years																		
Measure Life	13 Yrs.	Nominal Discount Rate	5.190%	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015				
(NOTE: 1 therm = 100,000 Btus)																						
Program Savings Data																						
Gas Savings - therms																						
1. Incremental savings from installations in a particular year -therms				1,236,172	1,236,172	1,236,172																
2. Cumulative Annual program savings - therms [1]				1,236,172	2,472,343	3,708,515	3,708,515	3,708,515	3,708,515	3,708,515	3,708,515	3,708,515	3,708,515	3,708,515	3,708,515	3,708,515	3,708,515	2,472,343				
Program Benefits																						
NPV Program Benefits (2000, \$'s)																						
3. Avoided Gas Supply Costs [2]				\$20,732,197	\$600,622	\$1,225,966	\$1,893,227	\$1,910,768	\$1,958,538	\$2,007,501	\$2,057,689	\$2,109,131	\$2,161,859	\$2,215,906	\$2,281,420	\$2,354,011	\$2,428,805	\$2,505,868				
4. Additional Quantifiable Benefits				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
5. Total Program Benefits				\$20,732,197	\$600,622	\$1,225,966	\$1,893,227	\$1,910,768	\$1,958,538	\$2,007,501	\$2,057,689	\$2,109,131	\$2,161,859	\$2,215,906	\$2,281,420	\$2,354,011	\$2,428,805	\$2,505,868				
Program Costs																						
NPV Program Costs (2000, \$'s)																						
6. Program Design, Admin., and Marketing				\$373,929	\$131,000	\$131,000	\$131,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
7. Program Evaluation				\$34,253	\$12,000	\$12,000	\$12,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
8. Customer/Contractor Rebates				\$3,310,636	\$1,159,829	\$1,159,829	\$1,159,829	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
9. Lost Base Revenue (allocated to this program)				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
10. Direct Utility Costs				\$3,718,817	\$1,302,829	\$1,302,829	\$1,302,829	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
Participant Costs																						
11. Incremental Customer Costs (less any program rebate)				\$3,310,636	\$1,159,829	\$1,159,829	\$1,159,829	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
Total Program Costs																						
12. Total Utility & Participant Costs				\$7,029,453	\$2,462,659	\$2,462,659	\$2,462,659	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
Screening Results																						
3. Total Resource Cost Test				2.95															Line 5 divided by line 12			

Notes: [1] Due to the measure life, end effects of savings are calculated and accounted for beyond 2014 but are not shown above.
[2] Source: 12/6/01 Avoided Gas Supply Costs Study UPDATE - Resource Insight, Inc.